Municipality/Organization: Town of Auburn

EPA NPDES Permit Number: MAR041088

MaDEP Transmittal Number: W-

Annual Report Number
& Reporting Period: No. 3: May 1, 2005-April 30, 2006

NPDES PII Small MS4 General Permit
Annual Report

Part I. General Information

Contact Person: James Zingarelli Title: Town Engineer

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Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Elizabeth A Prouty

Printed Name: Elizabeth Prouty

Title: Chairman, Board of Selectmen

Date: 4/28/06

Part II. Self-Assessment

The Town of Auburn has completed the required assessment and determined that our municipality is in compliance with all permit conditions.

Auburn's status with respect to historic properties was assessed during year 2. Auburn has verified that the MS4 outfalls are not having any impact on the three historic properties list on the National Registry of Historic Places. This was done through visual inspections at each historic property.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1A	Mail Educational Information to Businesses and Residents	Planning Dept., Conservation Commission, and Auburn Water District	Number of articles and copies of materials.	Education material was procured, adapted and mailed to residents as water bill inserts.	• Mail educational information to businesses and again to residents in water bill inserts. • The Town will develop more stormwater specific education materials.
Revised					
1B	Develop Stormwater Section of Town Website	Planning Dept., MIS Office and Website Manager	Measure number of hits per quarter.	Town Staff is in the process of developing the stormwater section of the Town's website.	• Complete and update the stormwater section of the Town's website.
Revised					
1C	Develop and broadcast a stormwater presentation on local cable network	Phase II Stormwater Committee and Engineering	Cable TV tapes of shows.	EPA's "After the Storm" was broadcast in April 2005 on local access cable.	• Inform residents of stormwater broadcast during future selectmen meetings. • Show presentation at two selectmen meetings.
Revised					
1D	Publish Quarterly Article in Local Newspaper	Planning Dept., Conservation Commission and Auburn Water District	Copies of Articles.	Periodic newspaper inserts regarding Auburn Pond Cleanup and Hazardous Waste Cleanup Day.	• Develop format for quarterly news article. • Submit a quarterly article to the local newspaper regarding upcoming stormwater events.
Revised					

1a. No additions at this time.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
2A	Conduct River, Stream, and Pond Cleanups	Planning Department and Conservation Commission	Cleaner streams as documented by before and after photographs	Advertised pond cleanup and had 4 citizens and a local Cub Scout Troop show interest in assisting with cleanup.	• Conduct stream and pond cleanup. • Document cleanup activities • Auburn Pond Cleanup scheduled for May 13, 2006
Revised					
2B	Establish a Classroom Education Program	Planning Department, Auburn Water District, Sewer Commission and Conservation Commission	The classroom education program will be implemented by year 5.	• The Sewer Superintendent will serve as the classroom education coordinator. • A stormwater education program has been discussed with the Auburn Superintendent of Schools.	• Stormwater related curriculum will be developed for the classroom • Work with schools to determine how to best implement the program. • Train volunteers to present the stormwater information.
Revised					
2C	Help Establish Volunteer Stormwater Organization	Phase II Stormwater Committee	Document quarterly meetings.	This task will be completed in Permit Year 4.	• Help establish a volunteer stormwater organization. • Identify stakeholders and coordinators. • Meet on a quarterly basis to discuss Phase II management plan implementation status/issues.
Revised					

2a. No additions for year 4.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
3A	Develop Town Storm Drain Outfall Map	Highway Department and Engineering	All outfalls mapped by year 5.	• A storm drain system map was developed using historical mapping projects, existing plans, and knowledge of town employees. • A GIS base map and database for the Auburn storm drain system was created. • 257 storm drain system outfalls were located and field-verified. • Outfall information and receiving water information was added to the existing GIS base map.	• Map completed. No additional activity planned
Revised					
3B	Develop Illicit Discharge Prohibition Ordinance	Planning Department and Board of Health	Obtain authorization to control inputs to the municipal drainage system. Bylaw at Town meeting by end of year 3.	• A draft Illicit Discharge Prohibition Bylaw has been completed. • The Board of Health adopted Illicit Discharge Prohibitions in the Title V regulations..	• Finalize the Illicit Discharge Bylaw. • Present draft to public. • Submit bylaw for Town Meeting.
Revised					
3C	Develop Illicit Discharge Detection and Elimination Plan and Implement Activities	Highway Department and Board of Health	All outfalls examined by year 4. Sources traced and conclusion documented within one year of discovery.	• An illicit discharge detection plan has been developed. • Sampling of seven suspect dry weather flow outfalls in all -basins was completed • Historic properties have been surveyed and examined for outfall impacts. No impacts were found.	• Illicit discharge detection plan completed. Dry weather flow sampling completed at seven locations. No further activity planned.
Revised					
3D	Incorporate Information on Illicit Discharges into Public Education and Outreach Topics	Highway Department and Board of Health	Copies of materials.	Illicit discharge education material was procured, adapted and mailed to residents as water bill inserts.	Incorporate public education materials on hazards associated with illegal discharges and improper disposal of waste with public education program.

Revised					
3E	Hold Annual Household Hazardous Waste Collections	Highway Department and Board of Health	Document quantity of wastes collected annually.	A Hazardous Waste Collection Day was not held this Permit Year but one is scheduled for May 20, 2006. Hazardous Waste Collection Day advertised in local paper	• Organize collection events and advertise with public education materials, emphasizing the need to collect wastes to avoid improper disposal and the resulting pollution. • Conduct Hazardous Waste Collection Day May 20, 2006
Revised					
3F	Identify Department to Take Stormwater Calls	Planning Department and Engineering	Log of complaints and actions taken.	• Currently the Highway Department or the Board of Health receives stormwater related calls. The Land Use Enforcement Officer will handle calls once that position has been established. • The stormwater section of the Town's website advertises whom to call to report dumping or other inappropriate inputs into the MS4. • Complaints are handled on an individual basis.	• Continue to advertise whom to call to report dumping or other inappropriate inputs into the MS4 on the stormwater section of the Town's website. • Develop protocol for addressing complaints. • Keep records of complaints and actions taken.
Revised					

3a. No additions for Illicit Discharge Detection & Elimination at this time.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
4A	Develop Erosion Control Regulation	Planning Department and Selectmen	Bylaw at Town meeting by end of year 2.	A draft Erosion Control Bylaw has been developed. This bylaw combines erosion and sedimentation controls and post-construction stormwater controls.	• Finalize Bylaw • Present draft to public. • Submit Bylaw for Town meeting.
Revised					
4B	Develop Guidance for Erosion Controls	Planning Department, Highway Department, Engineering and Consultant	Inspection checklist and documented inspections.	• The Town has proposed to create a new position for a "Land Use Enforcement Officer" to coordinate stormwater management, enforcement and construction site/erosion control inspections. • Developed draft guidance outlining specific erosion control requirements. • Developed a draft inspection checklist.	• Finalize guidance outlining specific erosion control requirements desired by Auburn. • Set up a tracking program. • Conduct inspections of erosion controls.
Revised					
4C	Identify Department to Take Stormwater Calls	Planning Department and Engineering	Record number of phone calls to hotline, copies of advertisements.	• Currently the Highway Department or the Board of Health receives stormwater related calls. The Land Use Enforcement Officer will handle calls once that position has been established. • The stormwater section of the Town's website advertises whom to call to report dumping or other inappropriate inputs into the MS4. • Complaints are handled on an individual basis.	• Continue to advertise whom to call to report dumping or other inappropriate inputs into the MS4 on the stormwater section of the Town's website. • Develop protocol for addressing complaints. • Keep records of complaints and actions taken.
Revised					

4a. No additions at this time

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
5A	Develop BMP Regulation	Planning Department and Selectmen	Bylaw at Town meeting by end of year 2.	A draft Post-Construction Stormwater Control Bylaw has been developed. This bylaw combines erosion and sedimentation controls and post-construction stormwater controls.	• Finalize Bylaw • Present draft to public. • Submit Bylaw for Town meeting.
Revised					
5B	Develop BMP Design Standards	Planning Department, Engineering and Consultant	Copy of design standards.	• Specific BMP requirements desired by Auburn are included in the Stormwater Bylaw and regulations. • Developed draft design standards for developers to follow including design performance criteria, BMP examples, and maintenance requirements. • Set up review criteria. • Incorporated by reference in bylaws.	Finalize design standards for developers to follow including design performance criteria, BMP examples, and maintenance requirements.
Revised					
5C	Develop and Implement Inspection Program	Planning Department, Engineering and Consultant	Retain copies of maintenance reports received annually, plus records of inspections completed and results.	• The Land Use Enforcement Officer will perform inspections. • O&M requirements are included in the Stormwater Regulations	• Setup a permit program and maintenance tracking program that requires annual submittal of maintenance reports by owner. • Conduct post-construction stormwater control inspections for sites where no annual report is submitted. • Require operation and maintenance plan of developers.
Revised					
5D	Amend Zoning Bylaws to Regulate Impervious Areas	Planning Department and Zoning Board of Appeals	The new zoning bylaw will be implemented by the end of year 1.	The Aquifer and Watershed Protection Overlay District is in the process of being rewritten. This bylaw deals with impervious surfaces in the overlay district.	Complete the rewrite of the Aquifer and Watershed Protection Overlay district section of the Zoning Bylaw with improvements in reducing impervious area.
Revised					

5E	Adopt a Tree Preservation Bylaw	Tree Warden	Adopt a Tree Preservation Bylaw by the end of year 3.	Scheduled for year 4.	• Develop a tree preservation bylaw. • Submit bylaw for Town Meeting.
Revised					

5a. No additional Post Construction Runoff Control BMPs.

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
6A	Sweep Streets in Town	Highway Department	Priority plan of sweeping based on water quality impact. Volume of sweepings collected.	• All of the streets and sidewalks were swept once this year. • Volume collected: 5,600 cubic yards	Sweep all streets.
Revised					
6B	Clean Catch Basins	Highway Department	Records of catch basins cleaned.	• 650 catch basins were cleaned this year based on a prioritization determined by the Town's Highway Department. • Volume collected: 1,200-1,300 cubic yards	• Clean all catch basins in Town annually or as required by a prioritization scheme & schedule. • Record sediment collected per catch basin or drainage network each cleaning.
Revised					
6C	Calibrate Salt Spreading Equipment	Highway Department	Prevent over-application of salt as shown with calibration records.	The Highway Department uses a 3 to 1 sand/ salt ratio on the Town's roads. The amount of mixture applied is controlled inside the cab of the truck. The employee uses experience and best judgment to determine how much of the mixture to apply.	Same as Year 3.
Revised					
6D	Continue Practice of Low Salt Ratio Application	Highway Department	Use low salt ratio throughout town.	Continued the existing practice of low salt ratio application throughout town to protect groundwater and surface water resources.	Same as Year 3.
Revised					

6E	Develop an Inspection and Maintenance Plan	Highway Department and Engineering	Records of inspections and maintenance.	• An in-house policy for disposing of maintenance generated wastes (i.e. catch basin cleanings, street sweepings, and sediment from detention ponds has been implemented. The Highway Department met with the Board of Health and the DEP to determine a suitable location for storage of the wastes. The wastes are brought to Rochdale Street and stored away from any water bodies and off of the landfill cap. • A written yearly BMP maintenance schedule was developed.	Perform inspection and maintenance, modifying frequency as necessary.
6F	Ensure Water Quality Improvements are Considered for Flood Projects	Highway Department and Engineering	Document flood control projects	No flood projects were completed during this permit year.	No flood control projects planned. However, all flood control projects will consider water quality.
Revised					
6G	Discontinue Outdoor Vehicle Washing	All Town Departments	Written policy.	• Discontinued outdoor vehicle washing at the highway garage. • Verified that all garage drains are attached to a gas trap which discharges to the sanitary sewer system. The gas trap is cleaned once per year. • The Town has complied with federal and state regulations pertaining to vehicle washing and rinsing.	No further action is required for the rest of the permit term.
Revised					
6H	Implement BMPs at the Highway Garage to Prevent Sedimentation to the Adjacent Waterway from Site Runoff and Road Material Storage	Highway Department	Before and after photographs. Records of sweeping and catch basin cleaning.	• The sand pile and raw material piles have been relocated away from the stream. • The yard and catch basins were cleaned frequently.	• Sweep the yard and clean catch basins frequently. • Document sweeping and catch basin cleaning.
Revised					

6I	Cover Junk Equipment and Vehicles	All Town Departments	Cover all junk equipment and vehicles.	All junk equipment and vehicles have been provided covers and drip pans.	Same as Year 3.
6J Revised	Dispose of Hazardous Waste Drums	All Town Departments	Keep a record of drum disposal.	All drums are stored indoors until they can be disposed.	Same as Year 3.
6K Revised	Inspect and Cover Dumpsters	Highway Department	Record inspections.	• Dumpsters have been inspected. • Temporary covers were provided for the dumpsters.	• Develop a written inspection checklist for dumpsters. • Inspect dumpsters yearly to ensure there are no leaks.
6L Revised	Document Protocols for Municipal Operations	Highway Department	Copies of policies.	New policies were sent to Town employees, such as the new vehicle washing policy banning outdoor washing of vehicles.	• Develop written policies for all municipal operations. • Send policies to all town employees.
6M Revised	Conduct Town Employee Stormwater Training	Highway Department and Engineering	Attendance sheet and copy of program.	• The Fire Department has under gone training for spill containment. • The Stormwater Committee will coordinate training for Town Departments. • Stormwater Training for the Highway Department took place in April 2005.	• Conduct annual stormwater training sessions for Town departments.

6a. No additional Good Housekeeping BMPs.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) *<<if applicable>>*

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
7A	Develop a Water Quality Strategy for 303d Waters	Town Engineer & Consultant	Summary of existing pollution prevention efforts, future needs, and responsible parties. Copy of Surface Water Quality Strategic Plan.	Not planned for Year 3.	Not planned for Year 4
Revised					
7B	Implement BMPs from Water Quality Strategy	Town Engineer, Consultant, & Town Departments (to be determined)	Photographs, logs, and BMP descriptions for completed efforts and water quality improvements.	Not planned for Year 3.	Not planned for Year 4.
Revised					

7a. No additional BMPs at this time for compliance with TMDLs.

7b. WLA Assessment

TMDL studies have been completed for Auburn Pond, Eddy Pond, Leesville Pond, Pondville Pond, and Stoneville Pond. The BMPs in minimum measures 1 through 6 are being applied first. These include measures recommended by the TMDLs such as public education, fostering volunteer watershed groups, street sweeping, catch basin cleaning and mapping outfalls. Once these basic BMPs are functioning it will be possible to assess their effect. Then the water quality strategy will be devised and additional measures taken as necessary.

Part IV. Summary of Information Collected and Analyzed

650 catch basins and culverts were cleaned.
1,200-1,300 cubic yards of material was removed from storm sewer structures.
5,600 cubic yards of street sweepings were collected.
Educational brochures from water billings
Newspaper clippings for Auburn Pond Cleanup
"Highway Happenings" newspaper clippings.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures	($)	

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	**Yes**
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	
▪ community participation	(%)	
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination			**X**	
▪ Erosion & Sediment Control			**X**	
▪ Post-Development Stormwater Management			**X**	
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination			**X**	
▪ Erosion & Sediment Control			**X**	
▪ Post-Development Stormwater Management			**X**	

Mapping and Illicit Discharges

Outfall mapping complete	(%)	**100%**
Estimated or actual number of outfalls	(#)	**257**
System-Wide mapping complete	(%)	**75%**
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	**100%**
Outfalls inspected/screened	(# or %)	**100%**
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	
% of population on septic systems	(%)	

Construction

Number of construction starts (>1-acre)	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	
Site inspections completed	(# or %)	
Tickets/Stop work orders issued	(# or %)	
Fines collected	(# and $)	
Complaints/concerns received from public	(#)	

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	**Every other year, or as needed**
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	**Every other year, or as needed**
Total number of structures cleaned	(#)	**650**
Storm drain cleaned	(LF or mi.)	**>500**
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs.or tons)	**1,200 yards**
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	($)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	**1/year**
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	**1/year**
Qty. of sand/debris collected by sweeping	(lbs.or tons)	**5,600 yards**
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	
Cost of sweepings disposal	($)	
Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	**3:1 Sand to Salt ratio**
Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	**Yes**
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	**Yes**
Storage shed(s) in design or under construction	(y/n)	